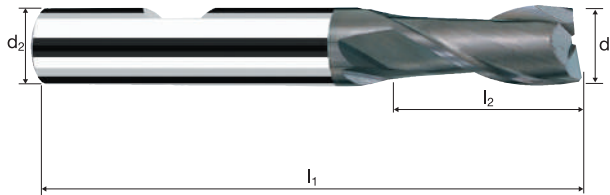


# Cylindrical end mills

Smooth-edged, normal version

HM  
MG10

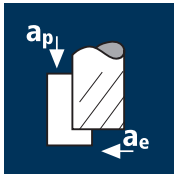
$\lambda$  30°  
 $\gamma$  12°



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Copper
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Example: Order-N°.										POLYCHROM	
										P5300	
										P5200	
Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	l <sub>4</sub>	45°	α	z			
138*	2.00	2.00	42	6.00	-	0.10	0.0°	2		●	
140	2.00	6.00	54	6.00	15.32	0.10	8.0°	2		●	
158*	2.50	2.50	42	7.00	-	0.10	0.0°	2		●	
160	2.50	6.00	54	6.00	14.89	0.10	7.5°	2		●	
178*	3.00	3.00	45	7.00	-	0.10	0.0°	2		●	
180	3.00	6.00	57	7.00	14.96	0.10	6.0°	2		●	
200	3.50	6.00	57	7.00	14.02	0.10	5.5°	2		●	
218*	4.00	4.00	50	8.00	-	0.10	0.0°	2		●	
220	4.00	6.00	57	8.00	14.59	0.10	4.5°	2		●	
240	4.50	6.00	57	8.00	13.66	0.15	3.5°	2		●	
258*	5.00	5.00	50	10.00	-	0.15	0.0°	2		●	
260	5.00	6.00	57	10.00	14.72	0.15	2.5°	2		●	
280	5.50	6.00	57	10.00	13.79	0.15	1.5°	2		●	
300	6.00	6.00	57	10.00	-	0.15	0.0°	2		●	
331	7.00	8.00	63	13.00	17.72	0.15	2.0°	2		●	
391	8.00	8.00	63	16.00	-	0.15	0.0°	2		●	
420	9.00	10.00	72	16.00	20.72	0.20	1.5°	2		●	
450	10.00	10.00	72	19.00	-	0.20	0.0°	2		●	
501	12.00	12.00	83	22.00	-	0.20	0.0°	2		●	
610	16.00	16.00	92	26.00	-	0.20	0.0°	2		●	
682	20.00	20.00	104	32.00	-	0.20	0.0°	2		●	
* without clamping flat only											

## Application



## Material

Steel  
< 850 N/mm<sup>2</sup>



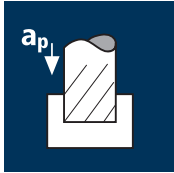
Steel  
850 - 1100 N/mm<sup>2</sup>



Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



Cast iron  
(lamellar / spheroidal)



Steel  
< 850 N/mm<sup>2</sup>



Steel  
850 - 1100 N/mm<sup>2</sup>



Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



Cast iron  
(lamellar / spheroidal)



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>s</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]	Q [cm <sup>3</sup> /min]
3.00	2	115	0.010	3.000	1.400	12200	245	1.0
4.00	2	115	0.015	4.000	1.800	9150	275	2.0
5.00	2	115	0.020	5.000	2.300	7320	295	3.4
6.00	2	115	0.025	6.000	2.700	6100	305	4.9
8.00	2	115	0.030	8.000	3.600	4575	275	7.9
10.00	2	115	0.040	10.000	4.500	3660	295	13.2
12.00	2	115	0.050	12.000	5.400	3050	305	19.8
16.00	2	115	0.065	16.000	7.200	2290	295	34.3
20.00	2	115	0.080	20.000	9.000	1830	295	52.7
3.00	2	75	0.010	3.000	1.400	7960	160	0.7
4.00	2	75	0.015	4.000	1.800	5970	180	1.3
5.00	2	75	0.020	5.000	2.300	4775	190	2.2
6.00	2	75	0.020	6.000	2.700	3980	160	2.6
8.00	2	75	0.030	8.000	3.600	2985	180	5.2
10.00	2	75	0.035	10.000	4.500	2385	165	7.5
12.00	2	75	0.045	12.000	5.400	1990	180	11.6
16.00	2	75	0.060	16.000	7.200	1490	180	20.6
20.00	2	75	0.070	20.000	9.000	1195	165	30.1
3.00	2	40	0.010	3.000	1.400	4245	85	0.4
4.00	2	40	0.015	4.000	1.800	3185	95	0.7
5.00	2	40	0.020	5.000	2.300	2545	100	1.2
6.00	2	40	0.020	6.000	2.700	2120	85	1.4
8.00	2	40	0.030	8.000	3.600	1590	95	2.8
10.00	2	40	0.035	10.000	4.500	1275	90	4.0
12.00	2	40	0.045	12.000	5.400	1060	95	6.2
16.00	2	40	0.060	16.000	7.200	795	95	11.0
20.00	2	40	0.070	20.000	9.000	635	90	16.0
3.00	2	150	0.015	3.000	1.400	15915	475	2.0
4.00	2	150	0.020	4.000	1.800	11935	475	3.4
5.00	2	150	0.020	5.000	2.300	9550	380	4.4
6.00	2	150	0.025	6.000	2.700	7960	400	6.4
8.00	2	150	0.035	8.000	3.600	5970	420	12.0
10.00	2	150	0.045	10.000	4.500	4775	430	19.3
12.00	2	150	0.055	12.000	5.400	3980	440	28.4
16.00	2	150	0.070	16.000	7.200	2985	420	48.1
20.00	2	150	0.090	20.000	9.000	2385	430	77.3
3.00	2	85	0.010	0.750	3.000	9020	180	0.4
4.00	2	85	0.010	1.000	4.000	6765	135	0.5
5.00	2	85	0.015	1.250	5.000	5410	160	1.0
6.00	2	85	0.015	1.500	6.000	4510	135	1.2
8.00	2	85	0.020	2.000	8.000	3380	135	2.2
10.00	2	85	0.030	2.500	10.000	2705	160	4.1
12.00	2	85	0.035	3.000	12.000	2255	160	5.7
16.00	2	85	0.045	4.000	16.000	1690	150	9.7
20.00	2	85	0.055	5.000	20.000	1355	150	14.9
3.00	2	60	0.010	0.750	3.000	6365	125	0.3
4.00	2	60	0.010	1.000	4.000	4775	95	0.4
5.00	2	60	0.015	1.250	5.000	3820	115	0.7
6.00	2	60	0.015	1.500	6.000	3185	95	0.9
8.00	2	60	0.020	2.000	8.000	2385	95	1.5
10.00	2	60	0.025	2.500	10.000	1910	95	2.4
12.00	2	60	0.030	3.000	12.000	1590	95	3.4
16.00	2	60	0.040	4.000	16.000	1195	95	6.1
20.00	2	60	0.050	5.000	20.000	955	95	9.5
3.00	2	30	0.010	0.750	3.000	3185	65	0.1
4.00	2	30	0.010	1.000	4.000	2385	50	0.2
5.00	2	30	0.015	1.250	5.000	1910	55	0.4
6.00	2	30	0.015	1.500	6.000	1590	50	0.4
8.00	2	30	0.020	2.000	8.000	1195	50	0.8
10.00	2	30	0.025	2.500	10.000	955	50	1.2
12.00	2	30	0.030	3.000	12.000	795	50	1.7
16.00	2	30	0.040	4.000	16.000	595	50	3.1
20.00	2	30	0.050	5.000	20.000	475	50	4.8
3.00	2	105	0.010	1.500	3.000	11140	225	1.0
4.00	2	105	0.010	2.000	4.000	8355	165	1.3
5.00	2	105	0.015	2.500	5.000	6685	200	2.5
6.00	2	105	0.020	3.000	6.000	5570	225	4.0
8.00	2	105	0.025	4.000	8.000	4180	210	6.7
10.00	2	105	0.030	5.000	10.000	3340	200	10.0
12.00	2	105	0.035	6.000	12.000	2785	195	14.0
16.00	2	105	0.050	8.000	16.000	2090	210	26.7
20.00	2	105	0.060	10.000	20.000	1670	200	40.1